WHEN NOT TO TAKE ANTIBIOTICS

JULY 1995

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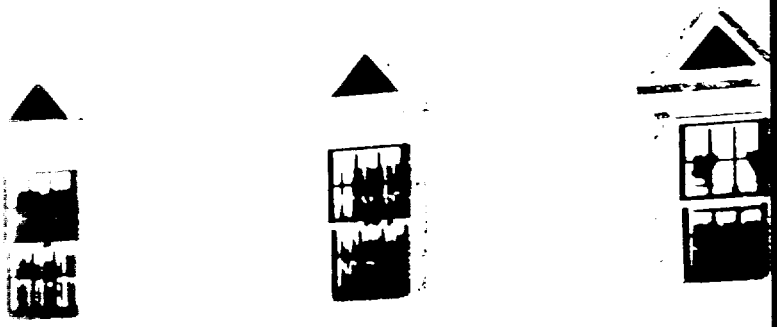
ROAD TEST:
Buick Riviera
Chevrolet Monte Carlo
Dodge Avenger
Ford Thunderbird

SAFE AT HOME

What to do about lead, radon, asbestos, and other worries



TEST REPORTS

- Iced teas
- Electric ranges
- Lipsticks
- Glues

Photo: Bob Abraham/International Stock, James Davis/International Stock

Chances are, there's something in your home that worries you. Maybe it's the stuff wrapped around the cellar pipes, the paint chipping off the windowsill, the woodstove that was so finicky last winter, or the high numbers from a radon test done when you bought the house. You've seen headlines warning about asbestos, lead, carbon monoxide, and radon —and a lot of conflicting advice about how to handle those problems.

Although none of them should make you panic, there's reason enough for concern. Consider the following:

- Any house or apartment built more than 20 years ago may well have lead paint and materials that were made with asbestos.
- Lead levels are often too high in the water of the nation's older cities. In Chicago, one in three readers whose water we tested recently had high levels even after they let the water run for a minute.
- There's about a 6 percent chance that your house contains more radioactive radon gas than health officials deem acceptable.
- Carbon monoxide in the home kills some 200 people a year and sickens at least 5000 more.

Most of these hazards can be readily detected, then either removed or left where they are and managed. But you have to begin by assessing the problem—and it's essential to use the right measuring device. In our tests, two radon detectors, two carbon-monoxide detectors, and two lead-test kits performed so poorly they could fail to give you a crucial warning.

You also need to know how to handle the hazards. Calling a contractor to remove lead paint or asbestos won't always help; if you remove them the wrong way, they can create a much more serious hazard.

In the reports that follow, we assess just how risky lead, radon, carbon monoxide, and asbestos are, and tell you how to detect and deal with them. We also report on tests of 32 products that help you find these hazards at home. And we tell you how to find testing labs and additional information.

With these hazards, one thing is certain: You can't rely on others to protect you. Some state and local laws provide a measure of protection to renters, but enforcement is hit or miss. Homeowners everywhere must learn how to protect themselves.

WHAT'S IN THIS SPECIAL REPORT

LEAD IN PAINT
CONTROLLING THE HAZARD

Before the 1960s, doctors thought that most of the lead-poisoned children they were seeing had eaten paint chips off the woodwork and windowsills of run-down apartments. They also believed that lead didn't hurt kids until it exceeded 60 micrograms per deciliter (µg/dl) in the blood—the point at which it can cause severe anemia, permanent brain damage, and other irreversible harm.

Today we know better. Many studies done in the U.S. and abroad have established that measurable cognitive and behavioral impairment in young children begins at a blood-lead level of about 10 µg/dl—now the Government's official "action" level. "There is no other neurotoxin in the world for which we have more compelling data," says Dr. Herbert Needleman, a pediatrician and psychiatrist who has conducted important studies on lead and cognitive performance.

Although lead can harm older children and adults, the threat is worst for children under six, and for fetuses exposed to lead through their mother's bloodstream, in part because their rapidly developing nervous systems are more susceptible to the metal's toxic effects. Among children, excessive exposure is most common among the urban poor. Malnutrition raises the risk of health damage. However, lead poisoning can make even well-nourished, middle-class, suburban children less smart than they would have been otherwise.

And we now know that children can ingest too much lead without ever coming near a paint chip. Microscopic particles of hard-to-clean-up lead dust also pose a real danger. They get on hands and toys when young children play on the floor, in dirt contaminated by weathering house paint, or near windowsills covered with lead dust that sifts down every time the sash moves. They go into mouths when kids chew on a plaything, suck their thumb, or eat a peanut butter sandwich without washing their hands.

Given lead paint's undisputed potential for harm, a natural impulse is to get it out of housing—and fast. In the 1970s, crews attacked many run-down apartments with power sanders, scrapers, and heat guns, raising clouds of lead-laden dust that often left children more poisoned than before "abatement."

The years have brought refinements in lead-removal techniques. Abatement specialists now appreciate the importance of sealing off rooms, controlling dust, and meticulously cleaning up. More and more states have laws spelling out who can remove lead paint and how.

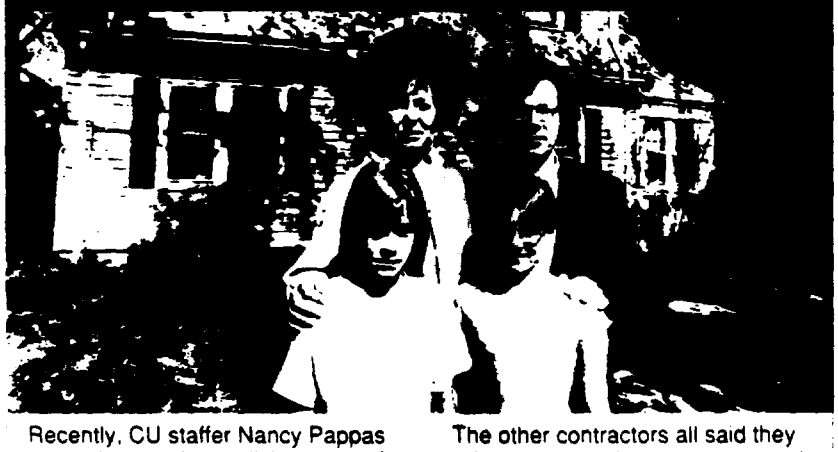
But those laws apply only to official abatement situations—when a child is found to have a dangerously high blood-lead level, say. Regular home repairs and renovations, even if they involve disturbing massive quantities of lead paint, have never been covered by such laws.

A new law should spur greater awareness about lead. Starting this fall, an amendment to the Federal Lead-based Paint Poisoning Prevention Act will require the owner of any house built before 1978 to alert a would-be buyer or tenant to possible hazards from lead paint and to disclose any lead paint known to be in the house. The buyer will get a 10-day grace period in which to have the house tested. The law won't require that anything be done about the paint, but it will at least force homeowners and potential homeowners to think about the hazard.

Where is it?

Ninety percent of houses built before 1940 contain lead paint. It was more durable than the unleaded paint of the day and was typically

ONE FAMILY'S STORY



Photograph by Whitney Lane

Recently, CU staffer Nancy Pappas needed to repaint the living room of her 75-year-old house in Connecticut. From a do-it-yourself test, she knew the window frames had lead paint on them. Worse, the paint was flaking badly in spots.

Pappas located five painting contractors through ads in a local paper and told each she was concerned about lead paint. Only one of the contractors seemed aware of the hazard; he told her, incorrectly, that she would have to hire a licensed abatement contractor and spend "a fortune" to have the paint removed.

The other contractors all said they would prepare and clean up as usual, and that the new paint would cover up the lead. "Don't worry," said one, pointing to a deteriorated windowsill. "I'll sand this off nice and smooth." He failed to mention the lead-dust hazard sanding would create.

This experience is, alas, pretty typical, according to people involved in educating contractors and consumers about lead hazards.

Pappas eventually decided to prepare the damaged spots herself, after which she turned the job over to a regular contractor.

used on surfaces that take punishment, like kitchen cabinets, door and window trim, exterior siding, and porch floors. It was used less often on interior walls and ceilings.

In each decade after 1940, the use of lead paint decreased, and in 1978, lead paint was banned completely. Still, paint containing some lead was sold until the late 1970s, so only the newest housing can be presumed lead-free.

If you live in—or are about to buy—a pre-1978 house and have young children, consider hiring a trained person to do a lead hazard assessment. That involves testing paint surfaces with a portable X-ray fluorescence device that produces instant results. It includes taking samples of dirt from outside the foundation, and dust samples from floors and windowsills, to be analyzed in a laboratory. An assessment should cost $200 to $400 for an average-size house.

Another way to tell whether your home has lead paint is to send paint chips to a lab listed by the U.S. Environmental Protection Agency. Or you can use one of the kits we describe on page 462.

If your house or apartment does contain lead paint, your next move depends on whether young children or pregnant women live there.

Even if they do, don't panic. More than half the dwellings in the U.S. have lead paint, yet fewer than 1 preschooler in 10 has a blood-lead level higher than 10 µg/dl.

To find out whether your children have been exposed to lead, have your pediatrician test their blood-lead level. Blood should be drawn directly from a vein; the commonly used finger-prick method can give false readings. If the results are too high, waste no time in locating and eliminating the source of the lead. In many communities, the health department will search your home for lead if your child has an elevated blood-lead level.

If you don't have young children —or if the children's blood-lead levels and the condition of the lead paint aren't cause for concern—you needn't do anything right away. That doesn't mean you're home free; living safely with lead paint requires an ongoing commitment to proper maintenance and repair.

Living with lead

If lead paint is in good shape, you may still want to cover it with wallpaper, paneling, or a thick coat of new paint, to prevent dust from escaping in the first place.

Other ways to keep lead paint from sloughing off: Have a sticky door planed or rehung until it moves smoothly. Wax balky window sashes, and use glossy paint or polyurethane varnish on windowsills and bare floors, to make them easier to wash.

If lead dust forms despite your best efforts, it still won't hurt children if it's cleaned up before they can get into it. In fact, many experts now believe that controlling dust works better than paint removal in preventing lead poisoning. Floors, windowsills, and window troughs should be scrubbed with water plus a phosphate detergent. If you live in a state that outlaws phosphate detergents, try a powdered dishwasher detergent. Wring out the sponge, mop, or rag in a separate bucket so you don't recycle lead into the cleaning solution, and change this rinse water frequently.

Dry sweeping, dusting, and vacuuming simply stir up lead dust, which can pass right through regular vacuum-cleaner bags. The only safe way to vacuum lead dust is with a HEPA (for high efficiency particle arresting) vacuum cleaner. It contains an ultrafine filter that traps tiny dust particles.

Household-sized HEPA vacuums cost about $400 to $600 (very few companies rent HEPA vacuums, though some lead-poisoning prevention programs do). That's more than most regular models, but the cost may be worth it: Some lead-control experts advise parents who have young children and who live in a house with a persistent lead-dust problem to use a HEPA vacuum as their usual cleaner.

We've tested two HEPA models in recent years; both are still sold. The *Fantom F106100* has an optional HEPA filter; the *Nilfisk GS-90* comes with filter installed. The filters made both vacuum cleaners very effective at controlling dust.

When you repaint

Once lead paint—or unleaded paint over lead paint—is in poor enough condition to require repainting, use special caution.

The last time you repainted a room, you probably prepared the surface by scraping off loose chips and sanding nicks and dents. Maybe you used a torch or heat gun to remove several layers of paint.

All of those are bad ideas if you have lead paint. A single square foot of lead-based paint, sanded into dust and distributed evenly in a 10x10-foot room, would create a lead-in-dust level nearly 100 times higher than safe limits.

The key to preparing lead-painted surfaces for repainting is dust control. If you're doing the job yourself, take these steps:

- Cover the work area thoroughly with heavy plastic drop cloths. Remove furniture or wrap it in plastic. Tape plastic over doors and windows.
- Rent or buy a HEPA respirator designed to filter lead dust. Wear plastic booties over your shoes.
- Wet the surface with a spray bottle before scraping or sanding with a wet/dry abrasive. Instead of sanding to "rough up" a glossy surface, use a chemical etcher.

If the surface is too far gone, you may want to remove the paint entirely using a chemical stripper. CU's paint experts recommend one that is free of the toxic solvent methylene chloride. *Peel Away 1* works well.

After you've prepared the surface, carefully roll up chips and debris inside the drop cloths, wrap the bundle in plastic, and throw it away. Ideally, you should then use a HEPA vacuum, wash the room, and vacuum again.

If you hire a contractor, be sure to find one who will use these techniques—not an easy task. Look for a contractor who is certified or licensed in lead safety. Otherwise, consult your local housing authority or health department, which may be able to provide some referrals.

Your choices are more limited, and more expensive, if the lead paint is in bad condition all over. Nevertheless, full-scale lead removal should be a last resort: It may make the problem worse and can cost several thousand dollars for a single-family house. One option is simply to replace the parts that have the worst paint, a practical choice for windows and doors. Another option is to cover damaged paint. Vinyl siding can cover peeling clapboard, for example.

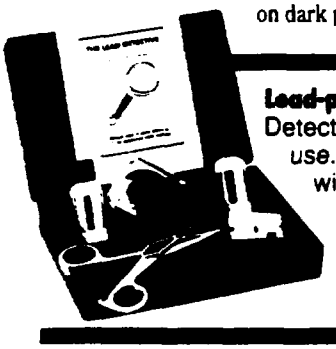
For a demolition job, consider hiring a trained abatement contractor (for advice, see page 469). After the area has been cleared and cleaned, you or your regular contractor can take over.

LEAD IN PAINT: TEST KITS

We examined eight widely available home lead-test kits, priced from $5 to $73, and two that involve sending paint samples to mail-order labs.

How the kits work

You cut, scrape, or sand a small patch to expose all layers of paint. Then you use a chemical reagent, either rhodizonate or sodium sulfide, which changes color if the paint contains lead. With rhodizonate kits, the warning color—pink—is easy to see, unless the paint itself is red or pink. Sodium sulfide kits indicate lead with a gray to black color, so it's hard to see a positive reaction on dark paint.



Lead-pipe cinch The Lead Detective, $30, is easy to use. You create a solution with tablet and water, then use a dropper to apply it to paint. A gray-black color indicates lead.

With the most convenient kits, you drop a solution onto the surface of exposed paint and wait five minutes. With the more complicated kits, you remove a chip of paint, grind it, apply a solution to leach the lead out, wait (as long as 24 hours, for one kit), add another chemical, and watch for a color change. Many kits have a way to let you verify the results. Several will also detect lead in ceramics, crystal, plumbing, household dust, and soil.

The mail-in kits include a plastic bag, plastic gloves, and a form to return with the paint sample. The cost includes analysis of one sample by a Government-certified lab. Results are likely to be much more accurate than those from home kits. Lab reports from mail-in kits also say *how much* lead is present, not just whether it's there or not.

What we found

Test-at-home kits. You'll need to follow instructions to the letter, and scrape the paint to expose every layer. Most kits clearly indicate paint with high lead levels. But most won't detect levels slightly above the 0.06 percent legal limit for lead in paint. Although much lower than the lead levels in most old paint, the levels these kits can miss are still too high for safety, especially in households with children.

Two kits that did detect lead at low levels are *Acc-U-Test*, $7, and *The Lead Detective*, $30. They're good on light paint. On dark paint, try *Know Lead*, $15, or *LeadCheck*, $18.

Several samples of the *Sensidyne Lead Alert Professional All-in-One* kit would not give us accurate results even when we followed instructions precisely. We can't recommend it.

Mail-in kits. The lab used by the *Clean Water Lead in Paint* kit, $20 without postage, claims to detect lead down to 0.05 percent. It was reasonably accurate, and results came in just over a week.

The *Home Diagnostics Lead in Paint* lab was fairly accurate with very high lead concentrations. However, five weeks after we sent our tests in, we hadn't received results.

Ratings

Within type, listed in order of increasing price

Product	Cost	Tests per kit	Sensitive down to	Convenience	Comments	Phone numbers
TEST-AT-HOME-KITS						
Lead Zone	$5	6	5.0 percent	Very easy to use. Results in 5 minutes or less. Can run check test.	Other uses: dishes, ceramics, crystal, soil, sand.	800 448-2536
Acc-U-Test	7	Many [2]	0.05	Very easy to use. Results in 5 minutes or less.	Dark paint can mask results. Alternate method for dark paint takes 24 hours. Other uses: pottery, household dust.	617 237-5546
Know Lead	15	4	0.5	Very easy to use. Results in 5 minutes or less. Can run check test.	Other uses: dinnerware, ceramics, glassware, toys, soldered cans, plumbing.	800 448-5323
LeadCheck Swabs	18	8	0.5	Very easy to use. Results in 5 minutes or less. Can run check test.	Red paint can mask results. Not for gypsum (sheetrock), stucco, plaster dust. Other uses: household dust, soil, solder, crystal, ceramics.	800 262-5323
The Lead Detective	30	Many [2]	0.05	Very easy to use. Results in 5 minutes or less. Can run check test.	Dark paint can mask results. Not for iron and copper, painted metal. Other use: pottery.	617 965-5665
Lead Solutions	30	5	5.0	More steps and longer wait than with others.	Use solution within 48-72 hours. Other uses: soil, household dust, plumbing.	800 441-8008
Merck EM Quant Pb++ 10077	73	100	5.0	Very easy to use. Results in 5 minutes or less.	Other uses: water, vehicle exhaust (to detect presence of leaded gas).	06151 720 Germany
MAIL-ORDER LAB-TEST KITS						
Clean Water	20 [3]	1	0.05	Turnaround time about 10 days.	—	734 251-6800
Home Diagnostics #402	20 [3]	1	[4]	Unacceptably long turnaround time.	—	212 308-1222

1 Reflects maximum sensitivity when applied to hardboard panels coated with multiple layers of leaded and non-leaded paint.
2 The $5 version comes in a combo with dropper. Number of uses varies.
3 Not including postage.
4 Sample test results had not reached us five weeks after samples were sent.

One to avoid One test-at-home kit we tested, the Sensidyne Lead Alert Professional All-in-One ($62), is not rated and cannot be recommended. Several samples failed to detect lead levels as high as 5 percent.

LEAD IN WATER

As lead has been removed from paint, gasoline, and soldered food cans, drinking water has remained a major source of exposure. Until a few decades ago, lead pipe was widely used to connect water mains to houses; and lead solder was used on copper pipes until 1988, when it was banned. Lead leaches into water as it stands in pipes and taps, especially if the water is acidic and "soft," or mineral-free.

Because lead concentrations can vary enormously even from home to home, the only way to be sure *your* water is lead-free is to have it tested. That's especially important if a pregnant woman or young children drink the water. You can arrange for low-cost lead tests through the following organizations:

- Clean Water Lead Test Inc., Asheville, N.C. 704 251-6800. $17.
- Environmental Law Foundation, Oakland, Calif. 510 208-4555. $16.50.
- SAVE, New York, N.Y. 718 626-3936. $20.

Or call your EPA regional office for a list of local labs (see page 469).

Avoid do-it-yourself kits for lead in water. Those we've tried in recent years haven't been reliable. One we tested for this report, *LeadCheck Aqua*, found lead (incorrectly) in distilled water, demineralized water, and ultrapure bottled water.

If your home's lead levels are above 15 parts per billion (ppb) in first-draw water (water that has stood in the pipes for hours) or 5 ppb in purged-line water (water that has run for a minute or more), consider taking action. You can use bottled water for drinking and cooking, but that's costly. It's best to buy a water-treatment device. Here are the basic choices, along with some still-available models that worked well in our tests two years ago:

Reverse-osmosis system. It removes almost all the lead, but it's the most expensive option, requires professional installation, and, in normal operation, wastes water. One we tested: *Culligan Aquacleer H-83*, approximately $800.

Distiller. It's effective and is simply plugged in, but it processes water slowly and uses a lot of electricity.

Filters. Special lead-removing filters, and some carbon filters that also remove lead, are available in undersink and countertop models. Both produce treated water on demand and can be installed by a do-it-yourselfer. Two undersink filters we tested: *Selecto Lead-Out 20*, approximately $85, and *Omni Total Plus OT-5*, approximately $150. One countertop filter: *Sterling Spring CTS*, approximately $100.

Carafe. It works something like a drip coffee maker. It requires no installation and is easy to use. But one carafe we tested, the *Brita Water Filter System OB01/OB03*, about $25, took 20 minutes to purify a gallon. It's best used to treat small amounts of drinking water.

A TALE OF THREE CITIES

In 1991, the U.S. Environmental Protection Agency required public water utilities to test for lead. In areas where high lead levels were found, the utilities were then required to take steps to reduce contamination. Water companies serving more than 50,000 people must install needed treatment by January 1997; smaller systems have an extra two years to comply.

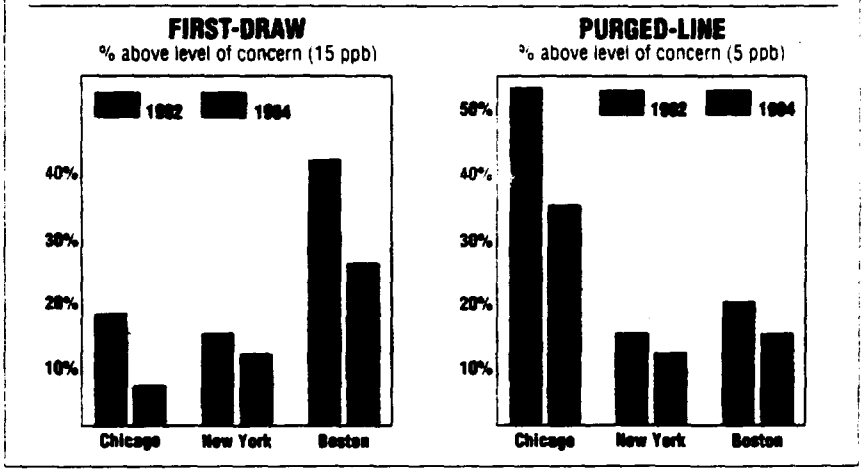
In 1992, shortly after the EPA's rule was issued but before most water companies had taken corrective action, we tested for lead in the water of 2643 CONSUMER REPORTS readers, focusing on eight cities. We found worrisome levels in a few cities, as we reported in February 1993.

Since then, many cities, including some we looked at, have been treating their water with chemicals that make lead less likely to leach from pipes. The chemicals, generally phosphates or alkalies, don't affect the taste or safety of the water.

To see whether such measures have worked, we recently tested water from the homes of 715 readers in three cities where we found problems in 1992—Chicago, New York City, and Boston.

The chart below compares the percentage of Chicago, New York City, and Boston households that had worrisome amounts of lead in 1992 with the percentage today.

We found some signs of progress: The steps taken by Chicago and New York City have begun to work, though there is still too much lead in the water in both cities. Results from Boston show moderate improvement in lead levels since 1992, but the city still has a major lead problem. One in four Boston households we surveyed had first-draw levels higher than 15 ppb. Although the city has been treating the water at its reservoir for years, it now plans to add a buffering agent closer to homeowners' taps.



siding when necessary, for instance, and waxing vinyl-asbestos floors.

If the materials are damaged, or if you plan to remove, sand, drill, or cut them, you need to know for sure whether they contain asbestos. Have a lab test them. A recent EPA survey of labs found an average charge of $23 a sample.

When it's falling apart

How to handle damaged asbestos depends on its condition, its location, and what's apt to happen to it in the near future. Spots of deterioration on pipe insulation can probably be wetted with a spray bottle (to control dust) and carefully wrapped with duct tape—but only if the pipe is in an out-of-the-way place where it won't be hit or further damaged.

Another option is a more permanent covering. Commercial "encapsulants," which must be applied by a trained professional, are available for pipe and boiler insulation. Vinyl siding will encapsulate exterior asbestos-cement shingles. A layer of drywall can cover a sprayed-on ceiling. Plywood covered by a sheet of vinyl can hide a deteriorating vinyl-asbestos floor. After encapsulation, you must not breach the barrier—for example, by drilling into a ceiling to install a new light fixture.

Asbestos that is falling apart, being hit, or in the path of leaks should probably be removed completely.

The true hazard

For most homeowners, the biggest risk for large-scale release of fibers comes when asbestos is disturbed during repairs. There is no guarantee an untrained plumber or contractor knows the first thing about handling asbestos safely. In fact, it's best to assume the opposite.

To protect yourself, hire a trained asbestos abatement contractor to do the demolition or removal, then turn over the rest of the job to the regular contractor. The abatement contractor should isolate and cover the work area with heavy plastic drop cloths, wet down the material to minimize the release of dust, dispose of the asbestos in compliance with local environmental laws, and clean up afterward with a HEPA vacuum cleaner.

This is expensive, no way around it. Removing asbestos around pipes, for instance, costs $10 to $20 per linear foot. But cleaning a whole house after the job has been done wrong is the most costly option of all.

HOW TO FIND HELP

There are national standards for the certification of laboratories, risk assessors, and abatement contractors handling lead, radon, and asbestos.

Some states license or register abatement professionals. If yours doesn't, you'll still be able to find competent help by calling the nearest U.S. Environmental Protection Agency office (numbers are below) and asking for the appropriate contact in your state.

The contractor

Never hire the same person to assess a problem *and* fix it. Ask for references and check them out. If the contractor claims to be licensed, ask to see a copy, then call the licensing agency to make sure the license is legitimate.

Here's what to look for:

Lead paint. Look for a contractor who has completed a course at one of the six regional lead-abatement training centers sponsored by the EPA. Twenty-two states license or certify lead professionals.

Radon. Your contractor should be certified by the EPA's Radon Contractor Proficiency program, and by your state, if it has a licensing or certification program. Certified contractors carry photo identification cards.

Asbestos. Every state except Arizona and Wyoming licenses contractors who remove asbestos from schools and public buildings. Though in some states it's legal for untrained contractors to remove asbestos from private homes, you should only consider a licensed person.

The contract

You may not be able to tell whether the contractor has done an adequate job unless you get "clearance testing" after the work is done.

For radon, clearance testing means a second round of long-term air tests. For lead, it means tests of dust. For asbestos, it means taking air samples after a fan has stirred up the air.

Your contract should specify that you will not pay the final installment of the fee until the job has passed the appropriate clearance test. And that test should be done by someone other than the contractor who did the work.

A final note: Don't expect to receive financial help from your insurance company; virtually all homeowners' policies exclude lead, asbestos, and radon.

Reprints of this report will be available. For pricing and information, write: CU Reprints, 101 Truman Ave., Yonkers, N.Y. 10703-1057.

EPA REGIONAL OFFICES

Region 1 (Conn., Me., Mass., N.H., R.I., Vt.) 617 565-3420

Region 2 (N.J., N.Y., Puerto Rico, Virgin Islands) 212 637-3000

Region 3 (Del., D.C., Md., Pa., Va., W.Va.) 215 597-9800

Region 4 (Ala., Fla., Ga., Ky., Miss., N.C., S.C., Tenn.) 404 347-4727

Region 5 (Ill., Ind., Mich., Minn., Ohio, Wisc.) 312 353-2000

Region 6 (Ark., La., N.M., Okla., Tex.) 214 665-6444

Region 7 (Iowa, Kan., Mo., Neb.) 913 551-7000

Region 8 (Colo., Mont., N.D., S.D., Utah, Wyo.) 303 293-1603

Region 9 (Ariz., Calif., Hawaii, Nev.) 415 744-1305

Region 10 (Alaska, Idaho, Ore., Wash.) 206 553-1200

OTHER CONTACTS

LEAD
National Lead Information Center Clearinghouse, 800 424-LEAD

Coalition to End Childhood Lead Poisoning, 410 727-4226

ASBESTOS
Asbestos Victims Special Fund Trust, Philadelphia, Pa., 215 735-1188

RADON
The National Safety Council Radon Hotline, 800 767-7236

CARBON MONOXIDE
The Consumer Product Safety Commission, Washington, D.C. 20207, 800 638-2772

by Whitney Lane

OHM CORPORATION
PROJECT 16473
GRANITE CITY, IL

09/06/95

SITE ADDRESS	SAMPLE NUMBER	XRF RESULT	ASC TOTAL PB	ASC TCLP PB
*110 ROOSEVELT	P110R-2	4573	6580	3.18
*112 ROOSEVELT	P112R-2	16680	19100	55.2
200 HARRISON	P200HN-1	51830	69300	244
SAND ROAD #2	SAND2-4	7260	8710	57.4
	SAND2-6	3940	4400	10.8
	SAND2-8	1815	1740	4.33
SCHAEFFER ROAD	SCHA-5	2035	1850	3.1
211 ALLEN	P211A-5	7800	8430	4.04
217 WATSON	P217W-3	2267	1830	0.92
209 HARE	P209HA-2	12285	21100	44.8
220 HARRISON	P220NH-4	1290	2580	1.09
1420 STATE	P1420ST-1	2389	1920	0.113
	P1420ST-3	2179	1610	0.136
	P1420ST-8	1686	1530	0.287
215 HILL	P215HI-2	3308.5	3150	4.73
114 CARVER	P114C-1	2932.5	11300	3.84
301 ALLEN	P301A-6	2489	2350	<.100
HILL-TERRY ALLEY	PHI-T-14	7880	10400	2.42
	PHI-T-15	2404	2020	1.01
	PHI-T-16	2100	2300	0.799
205 HARRISON	P205HN-1	1654	1620	1.03
TERRY-HARRISON ALLEY	T-HN-7	3019.5	5110	5.95
	T-HN-8	3072.5	3610	1.02
	T-HN-9	17725	22300	2.36
	T-HN-10	3742	3910	0.85
	T-HN-11	8080	12200	0.91
	T-HN-12	5005	3990	1.09
209 ALLEN	P209A-1	3742	4130	1.41
	P209A-2	12120	11800	8.2
	P209A-3	5064	5480	4.34
	P209A-4	7470	9570	14.3
205 HILL	P205HI-5	7030	17300	9.29
219 WATSON	P219W-2	1438	1680	0.623

* SPEAK TO PROPERTY OWNER BEFORE EXCAVATION

1420 State is the truck lot